

rejection forms a new rejection, Applicants contend the Examiner has issued new grounds of rejection. MPEP §706.07(a) states “second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant’s amendment of the claims nor based on information submitted in an information disclosure statement” submitted before the mailing of the final office action (emphasis added). Because the pending final office action presents new grounds of rejection, and because some rejected claims were not amended in the first response, Applicants respectfully submit that the final office action is premature and request withdrawal of the finality of the rejection.

#### Examiner’s Comments

Applicants are confused by the Examiner's description of Monma in the Final Office Action. In rebutting the response dated 11 October 2002 to the previous Office Action, the Examiner asserts that inductor 141, present in Figures 10 and 11 of Monma, is part of the antenna circuit, while parallel capacitors 142, 143, and 144 are part of the tuning circuit for adjusting the impedance of the antenna (page 2, lines 7-12). However, the Examiner later asserts that components 141 and 143 of Figure 11 are part of the transmission line circuit, while component 144 is part of the parallel tuning circuit (page 2, lines 16-20). These assertions seem inconsistent, not only with themselves, but with the Monma specification. Monma Figure 10 illustrates a circuit indicated by reference number 107 that includes inductor 141 and variable capacitor 142. Figure 11 illustrates an alternate circuit 107 that includes inductor 141, variable capacitance diode 143, and variable DC supply 144. Further, Figure 1 illustrates a radio set for an antenna that includes an impedance matching circuit, indicated by reference number 107. Therefore, Figures 1, 10, and 11 show that impedance matching circuit 107 includes inductor 141 and variable components (142, 143, and 144). Further, Monma specifically describes the impedance matching circuit 107 as “constituted by a circuit shown in one of FIGS. 10 to 12”

(column 5, lines 2-3). Impedance matching circuit of Figure 10 “is constituted by an L-shaped circuit comprising an inductor 141 and a variable capacitor 142” (column 5, lines 4-6, emphasis added), while impedance matching circuit of Figure 11 replaces variable capacitor 142 with a “circuit including a variable capacitance diode 143 and a variable voltage DC power supply 144” (column 5, lines 17-20). Applicants contend that the above remarks highlight the following features of Monma:

- Exemplary embodiments of impedance matching circuit 107 include components 141 and 142, (Figure 10), and components 141, 143, and 144, (Figure 11).
  - The impedance matching circuits 107 of Figures 10 and 11 include inductor 141.
- Impedance matching circuit 107 is in series with the signal path, (Figures 1 and 10-12).

If the Examiner contends that this interpretation of Monma is incorrect, the Examiner is requested to describe in detail where and how the Examiner’s interpretation is supported by Monma. The Examiner is also reminded of the mandate of MPEP §706.07 that “the examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal.”

#### §102 Rejection – Independent Claims 1, 26, and 39

The Examiner rejects claims 1-31 and 39-52 under 35 U.S.C. §102(e) as being anticipated by Monma. Applicants respectfully disagree. The instant application describes a method and apparatus for reducing coupling between an antenna and one or more additional antennas in close proximity to the first antenna. The instant invention reduces this coupling by selectively connecting one or more impedance matching circuits in parallel with the antenna. (See Figures 2-5). Independent apparatus claims 1, 26, and 39 each include a tuning circuit

selectively connected in parallel with an antenna signal path<sup>1</sup>. As shown in Figure 2 of the instant invention, the impedance matching circuits of the instant invention are not a part of the direct signal path between the antenna and the first signal circuit because each matching circuit is connected in parallel with the antenna. Therefore, as shown in Figure 3 of the instant invention, individual impedance matching circuits 312, 316, 320 may be disconnected from the antenna signal path using switches 314, 318, 322, respectively, without disconnecting the first signal circuit 304 from the antenna 308.

In direct contrast, Monma only shows impedance matching circuits connected in series with the antenna signal path as discussed above. For example, see Figure 1 of Monma. Further, because impedance matching circuit 107 is part of the direct signal path between antenna 102 and transceiver 106, disconnecting impedance matching circuit 107 from antenna 102, also disconnects transceiver unit 106 from antenna 102. Therefore, Monma cannot teach selectively connecting impedance matching circuits in parallel with an antenna signal path. For at least these reasons, Monma does not anticipate independent claims 1, 26, and 39. Because independent claims 1, 26, and 39 are patentably distinct from Monma, dependent claims 2-25, 27-31, and 40-52 are also patentably distinct from Monma. Applicants respectfully request reconsideration.

#### §102 Rejection – Dependent Claims 14, 15, and 27

In addition to the above arguments, Applicants contend that claims 14, 15, and 27 are also patentably distinct from Monma. As established above, Monma does not disclose even one impedance matching circuit selectively connected in parallel to the signal path. As a result, Monma cannot disclose “a plurality of impedance matching circuits, each impedance matching

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<sup>1</sup> For instance, claim 1 requires “a first parallel tuning circuit selectively connectable in parallel with the first signal path.” Claim 26 requires “a first switch selectively connecting in parallel the first impedance matching circuit with a transmission line connecting a first antenna to a first signal circuit.” Claim 39 requires “a first parallel tuning circuit selectively connectable in parallel with the first signal path.”

circuit being independently selectively connectable in parallel to the first signal path” (as claimed in claim 14), “a second parallel tuning circuit selectively connectable in parallel with the second signal path” (as claimed in claim 15), or “a second switch selectively connecting in parallel the second impedance matching circuit with a transmission line connecting a second antenna to a second signal circuit” (as claimed in claim 27). Therefore, for at least these reasons, Monma does not anticipate claims 14, 15, or 27. Applicants respectfully request reconsideration.

#### §103 Rejection – Independent Claim 33

The Examiner also rejects claims 32-38 under 35 U.S.C. §103(a) as being obvious over Monma in view of Michaels. Applicants respectfully disagree.

Regarding independent claim 33, the Examiner asserts that the combination of Michaels with Monma teaches every aspect of claim 33. Michaels describes a receiver with a specific interference filter, independent of any antenna impedance matching circuitry, to reduce interference from undesired narrow band signals received in a radio receiver. The Examiner asserts that Michaels discloses adjusting the impedance of an antenna based on the status of one or more signal circuits connected to an antenna. However, Michaels does not address the impedance of an antenna at all. In fact, the passage cited by the Examiner (column 1, lines 35-44) actually describes varying the center frequency of a narrow band rejection filter to reject undesired narrow band signals received at the antenna. Michaels says nothing about modifying the impedance of the antenna.

In direct contrast, the method of independent claim 33 adjusts the impedance in a multiple antenna system by “selectively connecting a first parallel impedance circuit in parallel with the first signal path” based on the active or inactive status of first and second signal sources. As discussed above, Monma does not disclose or suggest selectively connecting an impedance matching circuit in parallel with an antenna signal path. Further, Monma does not teach selectively connecting an impedance matching circuit based on the active or inactive

status of a signal source. Because Michaels does not address antenna impedance matching, much less selectively connecting impedance matching circuits in parallel with the signal path based on the status of a signal source, Michaels does not correct the defects of Monma. Therefore, the combination of Monma with Michaels does not render independent claim 33 obvious. Applicants respectfully request the Examiner reconsider the rejection and allow independent claim 33, as well as dependent claims 34-38.

#### §103 Rejection – Dependent Claims 32, 35, 36, and 38

Applicants note that claim 32 is indirectly dependent on independent claim 26. Because claim 26 is allowable (see above arguments), dependent claim 32 is also allowable.

In addition, Applicants contend that claims 35, 36, and 38 are non-obvious over Monma in view of Michaels. As discussed above, neither Monma nor Michaels, alone or in combination, describe selectively connecting impedance matching circuits in parallel with an antenna signal path. Because each of dependent claims 35, 36, and 38 further define the selective parallel connection of one or more impedance matching circuits<sup>2</sup>, claims 35, 36, and 38 are also non-obvious over Monma in view of Michaels. Applicants respectfully request reconsideration.

#### Conclusion

In view of the above remarks, Applicants submit that the pending claims of the present invention are patentably distinct from the cited art and stand in condition for allowance. Applicants respectfully request the Examiner reconsider the rejections and allow the application to move forward to allowance. If any issues remain unresolved, Applicants urge the Examiner to call the undersigned attorney for expedient resolution of any such issues.

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<sup>2</sup> Claim 35 requires “selectively connecting a first parallel impedance circuit in parallel with the first signal path.” Claim 36 requires “selectively attaching a selected one of the plurality of parallel impedance circuits in parallel with the first signal path.” Claim 38 requires “attaching the one or more selected parallel impedance circuits in parallel with the first signal path.”